

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Withdrawn) A method of manufacturing a flat aluminum electrolytic capacitor comprising a separator impregnated with an electrolytic solution, an anode foil and a cathode foil, a flat capacitor element that has external lead-out terminals connected respectively to said anode foil and cathode foil, and a flexible casing that houses the capacitor element and is hermetically sealed, said method comprising the steps of encasing the capacitor element in the flexible casing and applying aging treatment before hermetically sealing the casing, and hermetically sealing the flexible casing.
2. (Withdrawn) A method of manufacturing a flat aluminum electrolytic capacitor comprising a separator impregnated with an electrolytic solution, an anode foil and a cathode foil, a flat capacitor element that has external lead-out terminals connected respectively to said anode foil and cathode foil, and a flexible casing that houses the capacitor element and is hermetically sealed, said method comprises the steps of encasing the capacitor element in a predetermined casing and applying aging treatment under sealed condition, purging a gas that has been generated within, and hermetically sealing the flexible casing.
3. (Withdrawn) A method of manufacturing a flat aluminum electrolytic capacitor comprising a separator impregnated with an electrolytic solution, an anode foil and a cathode foil, a flat capacitor element that has external lead-out terminals connected respectively to said anode foil and cathode foil and a flexible casing that houses the capacitor element and is hermetically sealed, said method comprises the steps of aging the capacitor element while impregnating with the electrolytic solution, and hermetically sealing the flexible casing.
4. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 1, further comprising the step of carrying out the aging treatment again after the step of hermetically sealing the flexible casing.

5. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 1, further comprising a step of carrying out impregnation with the electrolytic solution before encasing said capacitor element in the flexible casing, or carrying out impregnation with the electrolytic solution within the flexible casing after encasing the capacitor element in the flexible casing.
6. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 1, further comprising the step of once again impregnating the capacitor element, that has been subjected to the aging treatment, with the electrolytic solution.
7. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 6, wherein electrolytic solutions of different compositions are used in the first and the second impregnation steps.
8. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 1, wherein the flexible casing is hermetically sealed under the condition of reduced pressure below 1 atm. in order to reduce voids in the flexible casing, after encasing said capacitor element in the flexible casing.
9. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 1, wherein the aging treatment is carried out at least once at an ambient temperature in a range from 10 to 125°C.
10. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 1, wherein the aging treatment is carried out under the condition of reduced pressure.
11. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 1, wherein the aging treatment is carried out while applying a voltage stepwise.

12. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 1, wherein the aging treatment is carried out at a constant voltage.

13. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 1, wherein said flat capacitor element has a stacked structure formed by laminating the anode foil and the cathode foil of a predetermined size alternately via separators, or winding a laminate of long anode and cathode foils laminated one on another with the resultant roll being flattened.

14. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 1, further comprising a step of carrying out the aging treatment after encasing the capacitor element, that has been encased in the flexible casing, in an outer casing having a higher strength.

15-19. (Cancelled).

20. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 2, further comprising the step of carrying out the aging treatment again after the step of hermetically sealing the flexible casing.

21. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 3, further comprising the step of carrying out the aging treatment again after the step of hermetically sealing the flexible casing.

22. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 2, further comprising a step of carrying out impregnation with the electrolytic solution before encasing said capacitor element in the flexible casing, or carrying out impregnation with the electrolytic solution within the flexible casing after encasing the capacitor element in the flexible casing.

23. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 3, further comprising a step of carrying out impregnation with the electrolytic solution before encasing said capacitor element in the flexible casing, or carrying out impregnation with the electrolytic solution within the flexible casing after encasing the capacitor element in the flexible casing.

24. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 2, further comprising the step of once again impregnating the capacitor element, that has been subjected to the aging treatment, with the electrolytic solution.

25. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 3, further comprising the step of once again impregnating the capacitor element, that has been subjected to the aging treatment, with the electrolytic solution.

26. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 2, wherein the aging treatment is carried out at least once at an ambient temperature in a range from 10 to 125°C.

27. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 3, wherein the aging treatment is carried out at least once at an ambient temperature in a range from 10 to 125°C.

28. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 2, wherein the aging treatment is carried out under the condition of reduced pressure.

29. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 3, wherein the aging treatment is carried out under the condition of reduced pressure.

30. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 2, wherein the aging treatment is carried out while applying a voltage stepwise.
31. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 3, wherein the aging treatment is carried out while applying a voltage stepwise.
32. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 2, wherein the aging treatment is carried out at a constant voltage.
33. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 3, wherein the aging treatment is carried out at a constant voltage.
34. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 2, wherein said flat capacitor element has a stacked structure formed by laminating the anode foil and the cathode foil of a predetermined size alternately via separators, or winding a laminate of long anode and cathode foils laminated one on another with the resultant roll being flattened.
35. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 3, wherein said flat capacitor element has a stacked structure formed by laminating the anode foil and the cathode foil of a predetermined size alternately via separators, or winding a laminate of long anode and cathode foils laminated one on another with the resultant roll being flattened.
36. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 2, further comprising a step of carrying out the aging treatment after encasing the capacitor element, that has been encased in the flexible casing, in an outer casing having a higher strength.

37. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 3, further comprising a step of carrying out the aging treatment after encasing the capacitor element, that has been encased in the flexible casing, in an outer casing having a higher strength.

38-41. (Cancelled)

42. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 2, wherein the flexible casing is hermetically sealed under the condition of reduced pressure below 1 atm. in order to reduce voids in the flexible casing, after encasing said capacitor element in the flexible casing.

43. (Withdrawn) The method of manufacturing a flat aluminum electrolytic capacitor according to claim 3, wherein the flexible casing is hermetically sealed under the condition of reduced pressure below 1 atm. in order to reduce voids in the flexible casing, after encasing said capacitor element in the flexible casing.

44. (New) A flat aluminum electrolytic capacitor comprising a separator impregnated with an electrolytic solution, an anode foil and a cathode foil, a flat capacitor element that has external lead-out terminals connected respectively to the anode foil and the anode foil, and a flexible casing that houses the capacitor element and is hermetically sealed to define an inside of said flexible casing, the inside of the flexible casing being under reduced pressure compared to ambient pressure outside of the flexible casing.

45. (New) The flat aluminum electrolytic capacitor in accordance with claim 44 wherein the reduced pressure is in the range of 3 to 720 mmHg.

46. (New) The flat aluminum electrolytic capacitor in accordance with claim 44 wherein the reduced pressure is in the range of 3 to 50 mmHg.

47. (New) The flat aluminum electrolytic capacitor in accordance with claim 44 wherein the reduced pressure is in the range of 3 to 20 mmHg.

48. (New) A flat aluminum electrolytic capacitor having a separator impregnated with an electrolytic solution, an anode foil and a cathode foil, a flat capacitor element that has external lead-out terminals connected respectively to the anode foil and the cathode foil, and a flexible casing that houses the capacitor element and is hermetically sealed to define an inside of said flexible casing, the inside of the flexible casing being under reduced pressure compared to ambient pressure outside of the flexible casing, said capacitor being made using a process comprising a step wherein the flat capacitor element is subjected to an aging treatment after being sealed in said flexible casing.

49. (New) The flat aluminum electrolytic capacitor in accordance with claim 48 wherein the capacitor element is a laminate element formed by laminating the cathode foil and anode foil of a predetermined size alternatively via a separator or winding a laminate of long anode and cathode foils one on another via a separator with resultant roll being flattened, the reduced pressure in the inside of the flexible casing being less than one atmospheric pressure.

50. (New) The flat aluminum electrolytic capacitor in accordance with claim 48 further comprising an outer casing having a higher strength than the flexible casing to encase the flexible casing.

51. (New) The flat aluminum electrolytic capacitor in accordance with claim 50 wherein the electrolytic solution contains at least one kind of nitro compound.

52. (New) The flat aluminum electrolytic capacitor in accordance with claim 50 wherein the outer casing has at least one of a plurality of openings stopped with a sealant.

53. (New) The flat aluminum electrolytic capacitor in accordance with claim 52 wherein the sealant is made of a sealing material selected from rubber, composite rubber and resin.

54. (New) The flat aluminum electrolytic capacitor in accordance with claim 52 wherein the external lead-out terminals are in the form of film or foil.
55. (New) The flat aluminum electrolytic capacitor in accordance with claim 54 wherein at least one lead terminal is provided for each external lead-out terminal.
56. (New) The flat aluminum electrolytic capacitor in accordance with claim 55 wherein the lead terminal is integrated with the sealant.
57. (New) The flat aluminum electrolytic capacitor in accordance with claim 56 wherein the flexible casing is made of metal, resin or composite thereof.
58. (New) The flat aluminum electrolytic capacitor in accordance with claim 56 wherein the flexible casing is made of metal, resin or composite thereof.
59. (New) The flat aluminum electrolytic capacitor in accordance with claim 50 wherein the outer casing has at least one of a plurality of openings stopped with a rubber sealant, the external lead-out terminals are in the form of film or foil, at least one lead terminal is provided for each external lead-out terminal, the lead terminal is integrated with the sealant, the flexible casing is made of metal, resin or composite thereof, and the outer casing is made of metal or resin.